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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/596,826 | 06/19/2000 | Charles R. Duncan | 4366-24 | 2865 |
| 22442 | 7590 | 06/04/2004 | EXAMINER | |
| SHERIDAN ROSS PC 1560 BROADWAY SUITE 1200 DENVER, CO 80202 | | | MARCELO, MELVIN C | |
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Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|------------------------|---------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 09/596,826 | DUNCAN, CHARLES R. | |
| | Examiner | Art Unit | |
| | Melvin Marcelo | 2663 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 19 June 2000.
 2a) This action is FINAL. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-35 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) Claim(s) 15-20 and 25-32 is/are allowed.
 6) Claim(s) 1-12,21,23 and 33-35 is/are rejected.
 7) Claim(s) 13,14,22 and 24 is/are objected to.
 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on 19 June 2000 is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date: _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date: _____ | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a) because they fail to show the packet bus 162, memory board 163, PRI trunk 165, other boards 166 and end points 167 in Figure 2 as described in the specification, page 11, lines 5-8. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 101

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 33-35 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. It is not clear what is the statutory class of the "flow control message" in claims 33-35.

33. A flow control message for updating a flow control counter, comprising: a first field for holding a link identifier for a specific link between telecommunications components; a second field for holding a group identifier for a grouping of links between telecommunications components; a third field for data corresponding to the link identifier; and a fourth field for data corresponding to the group identifier.

34. The flow control message of Claim 33, further comprising a record field for a number of records contained in the message.

35. *The flow control message of Claim 33, wherein the data in the third and fourth fields relates to a number of packets that have been acknowledged by a telecommunication component.*

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

4. Claims 7-10 are rejected under 35 U.S.C. 102(b) as being anticipated by Babiarz (US 5,274,634 A).

With respect to the claims, references to Babiarz appear in parenthesis.

7. *A telecommunications system (Babiarz, Figure 2), comprising: means for controlling a plurality of telecommunications subsystems (MLAP Controller 41), each telecommunications subsystem (Interface Cards 13) including: a plurality of*

telecommunications devices (**Telephones 7, 9**) and one or more interface means (**Line Interface Cards 13**) for interfacing between the plurality of telecommunication devices (**Telephones 7, 9**) and the controlling means (**MLAP Controller 41**); and network means (**HDLC Framer and data link 20A, 20B**) for networking the controlling means (**MLAP Controller 41**) with each of the telecommunications subsystems.

8. The system of Claim 7, wherein the plurality of telecommunications devices including a plurality of telephones (**Telephones 7, 9**).

9. The system of Claim 7, wherein the controlling means (**MLAP Controller 41**) includes a packet control driver (Column 6, lines 35-46).

10. The system of Claim 7, wherein the one or more interface means (**Line Interface Cards 13**) include one or more packet interfaces (**Packet Relay Controller 21**).

5. Claims 11, 12, 21 and 23 are rejected under 35 U.S.C. 102(e) as being anticipated by Simmons et al. (US 6,167,054 A).

With respect to the claims, references to Simmons appear in parenthesis.

11. A telecommunications system (**Simmons, Figure 1**), comprising: a controller (**PCI Host & Bridge 40**) for controlling a plurality of telecommunications subsystems (**PHY's 26, QuEST's 20**), each telecommunications subsystem including: a plurality of telecommunications devices (**Network stations 14, 16**) and one or more communication interfaces (**Interfaces MII 28 and Transceiver Interface 22**) for interfacing between the plurality of telecommunication devices (**Network stations 14, 16**) and the controller (**PCI Host 40**); and a communication line (**Data Bus 80, 82 in Figures 2A and 2B**) connecting the controller (**PCI Host 40**)

with each of the telecommunications subsystems (PHY's 26, QuEST's 20) to form a network.

12. The system of Claim 11, further comprising a first memory (SDRAM 34) accessible by the controller (PCI Host 40), the memory including one or more flow control counters (Column 11, line 62 to column 12, line 34, wherein the counter is used to generate flow control frames).

21. A method for managing a telecommunications system (Simmons, packet switched system in Figure 1), comprising: receiving a message (Figure 6, box 210); and at least one of incrementing or decrementing a counter in response to the message (Box 212), the counter being related to the capacity of a memory accessed by a telecommunications component (Column 11, line 62 to column 12, line 4).

23. A telecommunications system, comprising: receiving means for receiving a message (Figure 6, box 210); and processing means for at least one of incrementing or decrementing a counter in response to the message (Box 212), the counter being related to the capacity of a memory accessed by a telecommunications component (Column 11, line 62 to column 12, line 4).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Babiarz in view of Ohba et al. publication ('On the Packet-Interleaved Interface Between Packet-Switched Network and Computers').

Babiarz teaches the packet-based network with a communication line between a controller and a communication interface (see above). Babiarz does not teach transmitting a message including a message identifier and data, and processing the data in a predetermined manner based on the message identifier. Babiarz's invention is based on the HDLC protocol (see Summary of the Invention). A skilled artisan would have been motivated to adopt techniques associated with the HDLC protocol since the use of standardized protocols allows compatibility between different inventions. Ohba teaches a HDLC-based technique, wherein the transmitted message includes a message identifier and data, the data being processed in a predetermined manner based on the message identifier (page 1672, column 2, section "B. Process Number Method", especially the section "2) Process Number Method" where the message identifier is the process number). With respect to the claims, references to the prior art appear in parenthesis.

1. *A method for controlling a telecommunications system, comprising:*

transmitting, over a communication line in a packet-based network (Babiarz, HDLC packet-based network in Figure 2), a message from a controller (Babiarz, MLAP Controller 41 over communication line 20A, 20B) to a communication interface (Babiarz, Interface Card 13) between one or more telecommunication devices (Babiarz, Telephones 7,9) and the controller or from the communication

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interface to the controller, the message including a message identifier and data (Obvious to adopt Ohba's HDLC-based technique using Process Number, page 1672, column 2, "B. Process Number Method"); and

processing the data in a predetermined manner based on the message identifier (Ohba, page 1672, column 2, "a process is defined as a unit of a job executed in computer", wherein the process number is the message identifier).

2. The method of Claim 1, wherein the message identifier identifies at least one of a type and index corresponding to a message (Ohba, the process number/message identifier identifies an index corresponding to a message, page 1673, column 1, item "5") .

3. The method of Claim 1, wherein the message identifier is at least one of a numeric and alphanumeric symbol (Ohba, the process number is numeric).

4. The method of Claim 1, wherein the message identifier refers to at least one of a flow control message, a control message, a fault code message, a counter value message, an initialization message, a link update message, a command message, and a response message (Ohba, the process number/message identifier refers to a control message, page 1673, column 1, "[t]he link between host and sending office is controlled by transmitting the data block with the sender's process number from the sender").

5. The method of Claim 1, wherein the transmitting step includes adding at least one of packet control driver/packet interface header information, intermodule link header information, transmission control protocol header information, Internet protocol header information, and ethernet header information

(Babiarz, addition of packet interface header information 'Port Address Identifier 39' in Figure 4 and column 5, lines 30-41).

6. The method of Claim 1, wherein processing step includes processing at least one of packet control driver/packet interface header information, intermodule link header information, transmission control protocol header information, Internet protocol header information, and ethernet header information (Ohba, processing of the process number can be considered a processing of packet interface header information since it is header information associated with the data block (page 1673, column 1, top paragraph) or an intermodule link header information since it is header information linking the source and destination modules(page 1673, Figure 6)).

Allowable Subject Matter

8. Claims 13, 14, 22 and 24 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

9. Claims 15-20 and 25-32 are allowed.

10. The following is a statement of reasons for the indication of allowable subject matter: the prior art of record fails to anticipate or make obvious the additional features associated with each of the following claims.

13. The system of Claim 12, further comprising a second memory accessible by a processor in the communication interface, the second memory including one or more buffer status counters.

14. The system of Claim 13, wherein the one or more flow control counters indicate one of a memory capacity in use and a free memory capacity and the one or more buffer status counters

indicate the other of the one of a memory capacity in use and a free memory capacity.

15. A method for operating a telecommunications system, comprising: receiving a message from a telecommunication component;

determining whether a memory capacity assigned to a grouping of links is sufficient to contain the message; and transmitting the message when the memory capacity is sufficient to contain the message.

16. The method of Claim 15, further comprising: determining whether a memory capacity assigned to a link is sufficient to contain a message; transmitting the message when both the memory capacity assigned to the grouping of links and the memory capacity assigned to the link are each sufficient to contain the message; and applying back pressure to the telecommunication component when at least one of the memory capacity assigned to the grouping of links and the memory capacity assigned to the link are insufficient to contain the message.

17. The method of Claim 16, further comprising incrementing a link counter related to the link and a group counter related to the grouping of links when both the memory capacity assigned to the grouping of links and the memory capacity assigned to the link are each sufficient to contain the message.

18. A telecommunications system, comprising: receiving means for receiving a message from a telecommunication component; determining means for determining whether a memory capacity assigned to E grouping of links is sufficient to contain the message; transmitting means for transmitting the message when the memory capacity is sufficient to contain the message.

19. The system of Claim 18, further comprising: determining means for determining whether a memory capacity assigned to a link is sufficient to contain a message; transmitting means for transmitting the message when both the memory capacity assigned to the grouping of links and the memory capacity assigned to the link are each sufficient to contain the message; and applying means for applying back pressure to the telecommunication component when at least one of the memory capacity assigned to the grouping of links and the memory capacity assigned to the link are insufficient to contain the message.

20. The system of Claim 18, further comprising incrementing means for incrementing a link counter related to the link and a group counter related to the grouping of links when both the memory capacity assigned to the grouping of links and the memory capacity assigned to the link are each sufficient to contain the message.

22. The method of Claim 21, wherein the counter includes at least one of a group counter related to a grouping of links and a link counter related to a specific link and the group counter tracks a memory capacity assigned to the grouping of links and the link counter a memory capacity assigned to the specific link.

24. The system of Claim 23, wherein the counter includes at least one of a group counter related to a grouping of links and a link counter related to a specific link and the group counter tracks a memory capacity assigned to the grouping of links and the link counter a memory capacity assigned to the specific link.

25. A method for operating a telecommunications system, comprising: determining whether a counter is the same as or exceeds a predetermined level, the counter being related to a memory capacity of a computational component; when the counter is

the same as or exceeds the predetermined level, transmitting an update message to a second computational component; and when the counter is not the same as or in excess of the predetermined level, delaying the transmission of the update message to the second computational component.

26. *The method of Claim 25, further comprising before the determining step receiving an acknowledge message from a telecommunications device.*

27. *The method of Claim 25, wherein the counter includes at least one of a group counter related to a grouping of links and a link counter related to a specific link and the group counter tracks a memory capacity assigned to the grouping of links and the link counter a memory capacity assigned to the specific link.*

28. *The method of Claim 25, wherein the counter includes at least one of a group counter related to a grouping of links and a link counter related to a specific link and the group counter tracks a memory capacity assigned to the grouping of links and the link counter a memory capacity assigned to the specific link and further comprising incrementing or decrementing the counter to indicate an unused portion of the memory capacity.*

29. *A telecommunications system, comprising: determining means for determining whether a counter is the same as or exceeds a predetermined level, the counter being related to a memory capacity of a computational component; transmitting means for transmitting an update message to a second computational component, when the counter is the same as or exceeds the predetermined level; and delaying means for delaying the transmission of the update message to the second computational component when the counter is not the same as or in excess of the predetermined level.*

30. *The system of Claim 29, further comprising receiving means for receiving an acknowledge message from a telecommunications device.*

31. *The system of Claim 29, wherein the counter includes at least one of a group counter related to a grouping of links and a link counter related to a specific link and the group counter tracks a memory capacity assigned to the grouping of links and the link counter a memory capacity assigned to the specific link.*

32. *The system of Claim 31, further comprising means for incrementing or decrementing the counter to indicate an unused portion of the memory capacity.*

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melvin Marcelo whose telephone number is 703-305-4373. The examiner can normally be reached on Monday-Friday, 8:30 to 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau Nguyen can be reached on 703-308-5340. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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Melvin Marcelo
Primary Examiner
Art Unit 2663

June 1, 2004